

AUTHOR INDEX

- Adams, F., see Liu, X. D. 71
- Aguilar, M., see Castresana, J. M. 315
- Akagi, T., see Cheng, C. J. 173
- Al-Hajjaji, M. A.
Differential-pulse polarographic determination of sulphate after reduction to hydrogen sulphide 319
- Alumaibed, A. M.
— and Townshend, A.
Determination of acetaldehyde by flow injection analysis with soluble or immobilized aldehyde dehydrogenase 37
- Al-Wehaid, A.
— and Townshend, A.
Flow-injection amplification for the spectrophotometric determination of iodide 45
- Aruga, R.
— and Campi, E.
An improved nephelometric method for the determination of small amounts of thiosulfate in aqueous samples 277
- Aznarez, J.
—, Galban, J., Diaz, C. and Rabadan, J. M.
Extraction-spectrofluorimetric determination of cadmium with diethyldithiocarbamate and calcein in nonaqueous media 281
- Banaho, K., see Miyazaki, A. 297
- Barnett, N. W.
Determination of lead and nickel in animal bone by microwave-induced plasma atomic emission spectrometry with sample introduction by electrothermal vaporization 309
- Bender, C. J.
— and Tien, H. T.
Dynamic polarization of lipid bilayers as a special case in the electrochemistry of liquid/liquid interfaces 259
- Bennett, W. D., see Reay, P. F. 145
- Bergamin F^o, H., see Zagatto, E. A. G. 153
- Bermejo, E., see Hernández, L. 239
- Bihan, A., le, see le Bihan, A. 87, 103
- Bos, M., see Zollinger, D. Ph. 207
- Bourquin, D.
— and Brenneisen, R.
Determination of the major Δ^9 -tetrahydrocannabinol metabolite in urine by high-performance liquid chromatography and photodiode array detection 183
- Brenneisen, R., see Bourquin, D. 183
- Bruhn, C. G.
—, Piwonka, J. M., Jerardino, M. O., Navarrete, G. M. and Maturana, P. M.
Direct determination of lead in blood by electrothermal atomic absorption spectrometry with the platform and matrix modification 113
- Bulten, E., see Zollinger, D. Ph. 207
- Burns, D. T.
—, Chimpalee, D. and Hagan, P. F.
Spectrophotometric determination of chromium(VI) as dichromate after extraction with the pentamethylene-bis-(triphenylphosphonium) cation 293
- Cabon, J. Y.
— and le Bihan, A.
La matrice eau de mer et le signal du cuivre en spectrométrie d'absorption atomique sans flamme. Partie 1: étude de l'influence des principaux composants 87
- Cabon, J. Y.
— and le Bihan, A.
La matrice eau de mer et le signal du cuivre en spectrométrie d'absorption atomique sans flamme. Partie 2: proposition d'un schéma explicatif des phénomènes observés pour une eau de mer 103
- Campi, E., see Aruga, R. 277
- Carrión Domínguez, J. L.
— and de la Guardia Cirugeda, M.
Spectroscopic study of the aluminium/lumogallion system in the presence of non-ionic surfactants 53
- Castresana, J. M.
—, Elizalde, M. P., Aguilar, M. and Cox, M.
Synergic extraction of cobalt(II) with mixtures of 4-methyl-N-8-quinolinyl-

- benzene sulphonamide and neutral organophosphorus compounds 315
- Cheng, C. J.
- , Akagi, T. and Haraguchi, H.
Simultaneous multi-element analysis for trace metals in sea water by inductively-coupled plasma/atomic emission spectrometry after batch preconcentration on a chelating resin 173
- Chimpalee, D., see Burns, D. T. 293
- Christenhusz, A., see Zollinger, D. Ph. 207
- Cox, M., see Castresana, J. M. 315
- De La Guardia Cirugeda, M., see Carrión Domínguez, J. L. 53
- Díaz, C., see Aznarez, J. 281
- Elizalde, M. P., see Castresana, J. M. 315
- Engel, J., see Hulthe, P. 197
- Eskilsson, H.
- and Haraldsson, C.
Reductive stripping chronopotentiometry for selenium in biological materials with a flow system 231
- Espen, P., van, see van Espen, P. 71
- Fang, Z., see Zhu, Z. 25
- Gagosian, R. B., see Peltzer, E. T. 125
- Galban, J., see Aznarez, J. 281
- Gennaro, M. C., see Sarzanini, C. 191
- Gine, M. F., see Zagatto, E. A. G. 153
- Guardia Cirugeda, M., de la, see de la Guardia Cirugeda, M. 53
- Hagan, P. F., see Burns, D. T. 293
- Haraguchi, H., see Cheng, C. J. 173
- Haraldsson, C., see Eskilsson, H. 231
- Hayashi, K.
- , Sasaki, Y., Tagashira, S. and Hirata, K.
Spectrophotometric determination of copper(II) with carbon disulfide, a secondary amine and Triton X-100 271
- Hernández, L.
- , Zapardiel, A., Pérez-López, J. A. and Bermejo, E.
Study of iron and titanium complexes with propylenediaminetetraacetic acid by differential pulse polarography. Determination of iron and titanium in Portland cements 239
- Hirata, K., see Hayashi, K. 271
- Hubmann, M. R., see Leiner, M. J. P. 13
- Hulthe, B., see Hulthe, P. 197
- Hulthe, P.
- , Hulthe, B., Johannessen, K. and Engel, J.
Decreased ascorbate sensitivity with nafion-coated carbon fibre electrodes in combination with copper(II) ions for the electrochemical determination of electroactive substances in vivo 197
- Jerardino, M. O., see Bruhn, C. G. 113
- Johannessen, K., see Hulthe, P. 197
- Kim, H., see Thompson, R. Q. 165
- Koide, T., see Takada, T. 303
- Krug, F. J., see Zagatto, E. A. G. 153
- Langmyhr, F. J., see Wibetoe, G. 81
- Le Bihan, A., see Cabon, J. Y. 87, 103
- Leiner, M. J. P.
- , Hubmann, M. R. and Wolfbeis, O. S.
The total fluorescence of human urine 13
- Linden, W. E., van der, see van der Linden, W. E. 207
- Liu, X. D.
- , van Espen, P. and Adams, F.
Optimization of photoplate evaluation in spark-source mass spectrometry 71
- Martinelli, M., see Zagatto, E. A. G. 153
- Martínez Lozano, C., see Pérez-Ruiz, T. 63
- Maturana, P. M., see Bruhn, C. G. 113
- Mentasti, E., see Sarzanini, C. 191
- Miller, C. E., see Thompson, R. Q. 165
- Milner, D. F.
- and Weaver, M. J.
The influence of uncompensated solution resistance on the determination of standard electrochemical rate constants by cyclic voltammetry, and some comparisons with a.c. voltammetry 245
- Miyazaki, A.
- and Banho, K.
Indirect determination of fluoride in waters with lanthanum alizarin complexone and inductively-coupled plasma emission spectrometry 297
- Navarrete, G. M., see Bruhn, C. G. 113
- Peltzer, E. T.
- and Gagosian, R. B.
Sampling and quantitation of lipids in aerosols from the remote marine atmosphere 125
- Pérez-López, J. A., see Hernández, L. 239

- Pérez-Ruiz, T.
 —, Martínez Lozano, C. and Tomás, V.
 Microdetermination of riboflavin and
 riboflavin 5'-phosphate by a catalytic
 photokinetic method 63
- Piwonka, J. M., see Bruhn, C. G. 113
- Porta, V., see Sarzanini, C. 191
- Rabadan, J. M., see Aznarez, J. 281
- Reay, P. F.
 — and Bennett, W. D.
 Determination of amorphous silica and
 total silica in plant materials 145
- Reis, B. F., see Zagatto, E. A. G. 153
- Sarzanini, C.
 —, Gennaro, M. C., Porta, V. and Mentasti,
 E.
 Comparison of ligands for the recovery
 of trace aluminium(III) by anion-
 exchange 191
- Sasaki, Y., see Hayashi, K. 271
- Schaffar, B. P. H., see Wolfbeis, O. S. 1
- Schulmeister, T.
 Mathematical treatment of concentra-
 tion profiles and anodic current of am-
 perometric multilayer enzyme electrodes
 223
- Tagashira, S., see Hayashi, K. 271
- Takada, T.
 — and Koide, T.
 Atomic absorption spectrometric deter-
 mination of trace copper in water by
 sorption on an ion-exchange resin and
 direct atomization of the resin 303
- Thompson, R. Q.,
 —, Kim, H. and Miller, C. E.
 Comparison of immobilized enzyme
 reactors for flow-injection systems 165
- Tien, H. T., see Bender, C. J. 259
- Tomás, V., see Pérez-Ruiz, T. 63
- Townshend, A., see Alumaibed, A. M. 37
- Townshend, A., see Al-Wehaid, A. 45
- Van der Linden, W. E., see Zollinger, D. Ph.
 207
- Van Espen, P., see Liu, X. D. 71
- Wang, C.-Y., see Wen, M.-L. 325
- Weaver, M. J., see Milner, D. F. 245
- Wen, M.-L.
 — and Wang, C.-Y.
 Potentiometric titration of milligram
 amounts of organic acids with an inter-
 facial voltaic cell for end-point detection
 325
- Wibetoe, G.
 — and Langmyhr, F. J.
 Interferences in inverse Zeeman-
 corrected atomic absorption spectrom-
 etry caused by Zeeman splitting of
 molecules 81
- Wolfbeis, O. S., see Leiner, M. J. P. 13
- Wolfbeis, O. S.
 — and Schaffar, B. P. H.
 Optical sensors: an ion-selective optrode
 for potassium 1
- Wu, B., see Yang, J.-H. 287
- Yang, J.-H.,
 —, Zhu, G.-Y. and Wu, B.
 Enhanced luminescence of the euro-
 pium/terbium/thenoyltrifluoroacetone/
 1,10-phenanthroline/surfactant system,
 and its analytical application 287
- Zagatto, E. A. G.
 —, Reis, B. F., Martinelli, M., Krug, F. J.,
 Bergamin F^o, H. and Gine, M. F.
 Confluent streams in flow injection
 analysis 153
- Zapardiel, A., see Hernández, L. 239
- Zhu, G.-Y., see Yang, J.-H. 287
- Zhu, Z.
 — and Fang, Z.
 Spectrophotometric determination of
 total cyanide in waste waters in a flow-
 injection system with gas-diffusion
 separation and preconcentration 25
- Zollinger, D. Ph.,
 —, Bulten, E., Christenhusz, A., Bos, M.
 and van der Linden, W. E.
 Computerized conductometric deter-
 mination of stability constants of com-
 plexes of crown ethers with alkali metal
 salts and with neutral molecules in polar
 solvents 207

ANALYTICA CHIMICA ACTA

International journal devoted to all branches of analytical chemistry

(Abstracted, Indexed in: Anal. Abstr.; Biol. Abstr.; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Life Sci.; Index Med.; Mass Spectrom. Bull.; Sci. Citation Index; Excerpta Med.)

VOL. 198

CONTENTS

JULY 15, 1987

Spectrometric Methods

- Optical sensors: an ion-selective optrode for potassium
O. S. Wolfbeis and B. P. H. Schaffar (Graz, Austria) 1
- The total fluorescence of human urine
M. J. P. Leiner, M. R. Hubmann and O. S. Wolfbeis (Graz, Austria) 13
- Spectrophotometric determination of total cyanide in waste waters in a flow-injection system with gas-diffusion separation and preconcentration
Z. Zhu and Z. Fang (Shenyang, Peoples' Republic of China) 25
- Determination of acetaldehyde by flow injection analysis with soluble or immobilized aldehyde dehydrogenase
A. M. Alumaibed and A. Townshend (Hull, Great Britain) 37
- Flow-injection amplification for the spectrophotometric determination of iodide
A. Al-Wehaid and A. Townshend (Hull, Great Britain) 45
- Spectroscopic study of the aluminium/lumogallion system in the presence of non-ionic surfactants
J. L. Carrión Domínguez and M. de la Guardia Cirugeda (Valencia, Spain) 53
- Microdetermination of riboflavin and riboflavin 5'-phosphate by a catalytic photokinetic method
T. Pérez-Ruiz, C. Martínez Lozano and V. Tomás (Murcia, Spain) 63
- Optimization of photoplate evaluation in spark-source mass spectrometry
X. D. Liu, P. van Espen and F. Adams (Wilrijk, Belgium) 71
- Interferences in inverse Zeeman-corrected atomic absorption spectrometry caused by Zeeman splitting of molecules
G. Wibetoe and F. J. Langmyhr (Oslo, Norway) 81
- La matrice eau de mer et le signal du cuivre en spectrométrie d'absorption atomique sans flamme. Partie 1: étude de l'influence des principaux composants
J. Y. Cabon et A. le Bihan (Brest, France) 87
- La matrice eau de mer et le signal du cuivre en spectrométrie d'absorption atomique sans flamme. Partie 2: proposition d'un schéma explicatif des phénomènes observés pour une eau de mer
J. Y. Cabon et A. le Bihan (Brest, France) 103
- Direct determination of lead in blood by electrothermal atomic absorption spectrometry with the vov platform and matrix modification
C. G. Bruhn, J. M. Piwonka, M. O. Jeradino, G. M. Navarrete and P. C. Maturana (Concepción, Chile) 113

General Analytical Chemistry

- Sampling and quantitation of lipids in aerosols from the remote marine atmosphere
E. T. Peltzer and R. B. Gagosian (Woods Hole, MA, U.S.A.) 125
- Determination of amorphous silica and total silica in plant materials
P. F. Reay and W. D. Bennett (Palmerston North, New Zealand) 145
- Confluent streams in flow injection analysis
E. A. G. Zagatto, B. F. Reis, M. Martinelli, F. J. Krug, H. Bergamin F^o and M. F. Gine (São Paulo, Brazil) 153
- Comparison of immobilized enzyme reactors for flow-injection systems
R. Q. Thompson, H. Kim and C. E. Miller (Oberlin, OH, U.S.A.) 165
- Simultaneous multi-element analysis for trace metals in sea water by inductively-coupled plasma/atomic emission spectrometry after batch preconcentration on a chelating resin
C. J. Cheng, T. Akagi and H. Haraguchi (Tokyo, Japan) 173
- Determination of the major Δ^9 -tetrahydrocannabinol metabolite in urine by high-performance liquid chromatography and photodiode array detection
D. Bourquin and R. Brenneisen (Berne, Switzerland) 183

(Continued overleaf)

Comparison of ligands for the recovery of trace aluminium(III) by anion-exchange C. Sarzanini, M. C. Gennaro, V. Porta and E. Mentasti (Turin, Italy).	191
<i>Electrometric Methods</i>	
Decreased ascorbate sensitivity with nafion-coated carbon fibre electrodes in combination with copper(II) ions for the electrochemical determination of electroactive substances in vivo P. Huithe, B. Huithe, K. Johannessen and J. Engel (Gothenburg, Sweden)	197
Computerized conductometric determination of stability constants of complexes of crown ethers with alkali metal salts and with neutral molecules in polar solvents D. Ph. Zollinger, E. Bulten, A. Christenhusz, M. Bos and W. E. van der Linden (Enschede, The Netherlands).	207
Mathematical treatment of concentration profiles and anodic current of amperometric multilayer enzyme electrodes T. Schulmeister (Berlin-Buch, G.D.R.)	223
Reductive stripping chronopotentiometry for selenium in biological materials with a flow system H. Eskilsson and C. Haraldsson (Gothenburg, Sweden).	231
Study of iron and titanium complexes with propylenediaminetetraacetic acid by differential pulse polarography. Determination of iron and titanium in Portland cements L. Hernández, A. Zapardiel, J. A. Pérez-López and E. Bermejo (Madrid, Spain)	239
The influence of uncompensated solution resistance on the determination of standard electrochemical rate constants by cyclic voltammetry, and some comparisons with a.c. voltammetry D. F. Milner and M. J. Weaver (West Lafayette, IN, U.S.A.)	245
Dynamic polarization of lipid bilayers as a special case in the electrochemistry of liquid/liquid interfaces C. J. Bender and H. T. Tien (East Lansing, MI, U.S.A.)	259
<i>Short Communications</i>	
Spectrophotometric determination of copper(III) with carbon disulfide, a secondary amine and Triton X-100 K. Hayashi, Y. Sasaki, S. Tagashira and K. Hirata (Yamaguchi-shi, Japan).	271
An improved nephelometric method for the determination of small amounts of thiosulfate in aqueous samples R. Aruga and E. Campi (Turin, Italy).	277
Extraction-spectrofluorimetric determination of cadmium with diethyldithiocarbamate and calcein in non-aqueous media J. Aznarez, J. Galban, C. Diaz and J. M. Rabadan (Zaragoza, Spain)	281
Enhanced luminescence of the europium/terbium/thenoyltrifluoroacetone/1,10-phenanthroline/surfactant system, and its analytical application J.-H. Yang, G.-Y. Zhu and B. Wu (Shandong, Peoples' Republic of China)	287
Spectrophotometric determination of chromium(VI) as dichromate after extraction with the pentamethylene-bis(triphenylphosphonium) cation D. Thorburn Burns, D. Chimpalee and P. F. Hagan (Belfast, Northern Ireland)	293
Indirect determination of fluoride in waters with lanthanum alizarin complexone and inductively-coupled plasma emission spectrometry A. Miyazaki and K. Banho (Ibaraki, Japan).	297
Atomic absorption spectrometric determination of trace copper in water by sorption on an ion-exchange resin and direct atomization of the resin T. Takada and T. Koide (Tokyo, Japan)	303
Determination of lead and nickel in animal bone by microwave-induced plasma atomic emission spectrometry with sample introduction by electrothermal vaporization N. W. Barnett (Manchester, Great Britain)	309
Synergic extraction of cobalt(II) with mixtures of 4-methyl-N-8-quinolinybenzene sulphonamide and neutral organophosphorus compounds J. M. Castresana, M. P. Elizalde (Bilbao, Spain), M. Aguilar (Barcelona, Spain) and M. Cox (Hatfield, Great Britain)	315
Differential-pulse polarographic determination of sulphate after reduction to hydrogen sulphide M. A. Al-Hajjaji (Makkah Al-Mukarramah, Saudi Arabia)	319
Potentiometric titration of milligram amounts of organic acids with an interfacial voltaic cell for end-point detection M.-L. Wen and C.-Y. Wang (Yunnan, Peoples' Republic of China)	325
<i>Book Reviews</i>	329
<i>Author Index</i>	343

